1. Test Chapter
    1. Horizontal Alignment Test

Horizontal Alignment Test

Example:
Exercise:

Problem:
Finding the Trigonometric Functions of an Angle

Find $\sin$, $\cos$, $\tan$, $\sec$, $\csc$,and $\cot$. when $= \frac{}{6}$.

Solution:

We have previously used the properties of equilateral triangles to demonstrate that $\sin \frac{}{6} = \frac{1}{2}$ and $\cos \frac{}{6} = \frac{\sqrt{3}}{2}$.We can use these values and the definitions of tangent, secant, cosecant, and cotangent as functions of sine and cosine to find the remaining function values.
Equation:

$$\tan \frac{}{6} = \text{mfrac}$$
$$= \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$

Equation:

$$\sec \frac{}{6} = \frac{1}{\cos \frac{}{6}}$$
$$= \frac{1}{\frac{\sqrt{3}}{2}} = \frac{2}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

Equation:

$$\csc \frac{}{6} = \frac{1}{\sin \frac{}{6}} = \frac{1}{\frac{1}{2}} = 2$$

Equation:

$$\cot \frac{}{6} = \frac{\cos \frac{}{6}}{\sin \frac{}{6}}$$
$$= \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \sqrt{3}$$